

Claims:

Sub 1. 1. A method for treating a liquid effluent heavily loaded especially with nitrogen and with phosphorus, characterised in that it comprises the following stages:

- a) addition of a basic reagent to this liquid effluent to obtain a pH in the range from 8.5 to 13; and
- b) pulverisation of the basified liquid effluent derived from stage a) in a stream of air.

2. The method according to Claim 1, characterised in that the basic reagent added to stage a) is unslaked or slaked lime in the form of powder, paste or liquid.

3. The method according to Claim 2, characterised in that the concentration of lime $[\text{Ca}(\text{OH})_2]$ is a maximum of 1,000 g/litre of reagent.

4. The method according to Claim 3, characterised in that the stage b) is repeated a certain number of times for the same basified effluent.

5. The method according to Claim 4, characterised in that the passage number is in the range from 1 to 50.

6. The method according to Claim 1, characterised in that at the start of stage b) an anti-foam catalyst is added, the quantity of which varies from 0 to 1 l/m³ of liquid effluent which is to be treated.

7. The method according to Claims 1 to 5, characterised in that it likewise comprises a stage c) for sifting the liquid effluent derived from stage b).

8. A device for implementing the method according to Claims 1 to 7, characterised in that it comprises

- a mixing reactor for bringing the liquid effluent into contact with the basic reagent, provided with an intake for this effluent and another intake for the basic reagent;
- an ammonia-extracting reactor (1), connected to the mixing reactor, and
- a tank for storing the treated liquid effluent derived from the ammonia-extracting reactor (1).

9. The device according to Claim 8, characterised in that the mixing reactor comprises a device for measuring the pH of the medium connected to a means situated on the intake for the basic reagent for regulating automatically the added quantity thereof.

10. The device according to Claim 9, characterised in that the ammonia-extracting reactor (1) or degassing reactor comprises a lower part (2) collecting in particular the basified liquid effluent and an upper part (5) in which there is situated a pulverisation rack (4) provided with nozzles (6), connected at the lower part (2) to said reactor (1) and

comprising a feed pump (7), openings (8) being arranged between the two parts to allow exterior air to enter, an exhaust air fan being connected to said upper part (5).

11. The device according to Claim 10, characterised in that the pulverisation rack (4) comprises nozzles (6) of the cyclone type.

12. The device according to Claim 10, characterised in that the upper part (5) of the degassing reactor (1) is connected to a devesiculer (9).

13. The device according to Claim 12, characterised in that it comprises a washing tower connected to the devesiculer or any other means allowing the ammonia to be collected or eliminated.

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